

Implementing Active, Population-Based Surveillance in Thailand: Experience of Sa Kaeo Province

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Background: In 2001, the International Emerging Infections Program was launched as a new collaboration between the U.S. Centers for Disease Control and the Thai Ministry of Public Health (MoPH). Under this collaboration, IEIP worked with Sa Kaeo Province to implement active population-based surveillance to capture high quality data to measure the burden of infectious diseases.

Methods: The entire provincial population is defined as the surveillance area and the first syndrome captured is radiographically-confirmed pneumonia. Using a standard case definition, case ascertainment is conducted at all 8 public hospitals. The Bureau of Epidemiology conducts routine audits. A provincial working group meets monthly to review surveillance progress and establish priority research areas.

Results: After the first year of surveillance, the annual incidence of radiologically-confirmed pneumonia was 213 per 100,000 in persons of all ages, and 734 per 100,000 children under 5. In addition to surveillance, projects in the first year have included a comparison of digital imaging technologies to capture chest radiographs which demonstrated that digital cameras are a high quality, affordable technology, and a community survey that suggest persons in Sa Kaeo have good access to health care. A project to identify the etiologies of the pneumonia cases began in July 2003. The collaboration has strengthened provincial staff capacity, hospital laboratory facilities, and communication systems. Because of the early success, the MoPH expanded activities to a second province, Nakhon Phanom, and to a second syndrome, jaundice.

Conclusions: Setting up active population-based surveillance has helped to motivate health officials in the province. The surveillance will monitor emerging trends, guide treatment and prevention, and perhaps provide warning signs of emerging diseases. The findings will be communicated to policymakers to help guide national health priorities. This international collaboration pushes concerned health sectors towards higher standards of surveillance, and at the same time strengthens the capacity of health personnel and facilities.

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